### Section II

# **Accompanying Load And Drop Items**

## STOWING ACCOMPANYING LOADS

3-7. Each specific rigging manual contains the weight limitations, placement, and any additional restrictions on accompanying loads. Exact instructions for lashing the accompanying load are given in the specific rigging manual.

### **CAUTIONS**

- Only ammunition listed in FM 10-500-53/ MCRP 4-3.8/TO 13C7-18-41 may be rigged for airdrop.
- 2. Hazardous materials must be packaged, marked, and labeled as required by AFJMAN 24-204/TM 38-250.
- At least two layers of honeycomb must be placed under all ammunition rigged for airdrop unless the specific rigging manual states differently.

### PREPARING DROP ITEMS

3-8. Some items need to be prepared for rigging. This preparation can include removing, reinforcing, stowing, and securing components. Detailed preparation instructions will be included in the specific rigging manual.

### **COVERING LOAD**

3-9. Covers may be needed to protect the load and keep the suspension slings from fouling. To keep the load from being damaged by falling hardware such as parachute releases, it may be necessary to cover portions of the load with honeycomb or cloth protectors. If a cover is needed, the specific rigging manual will include this information and the procedures for its installation.

### Section III

# **Suspension Slings And Lashings**

### ATTACHING SLINGS

3-10. The specific rigging manual includes the length and loops of suspension slings needed and the method used to connect them to the platform or drop item. When suspension slings must be joined to form a longer suspension sling, a two-point link may be used. Attach suspension slings to the suspension bracket assembly or tandem links using large suspension clevises.

### **CAUTION**

The nuts must be tight enough to keep them from loosening during transport and airdrop.

### SAFETY TIEING SLINGS

3-11. Safety tieing the suspension slings keeps them from entangling with the load. Safety tie the slings according to the instructions given in the specific rigging manual for the particular load. Safety tie all suspension slings with a deadman's tie as shown in Figure 3-10.

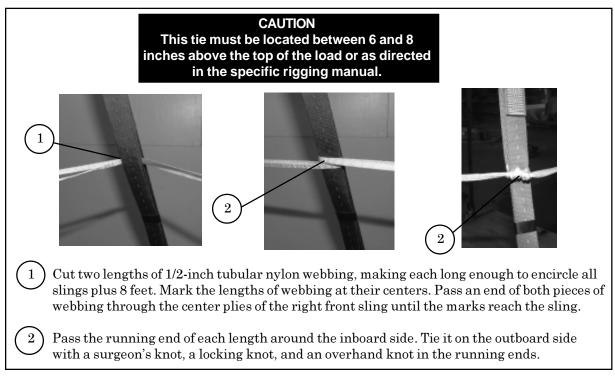
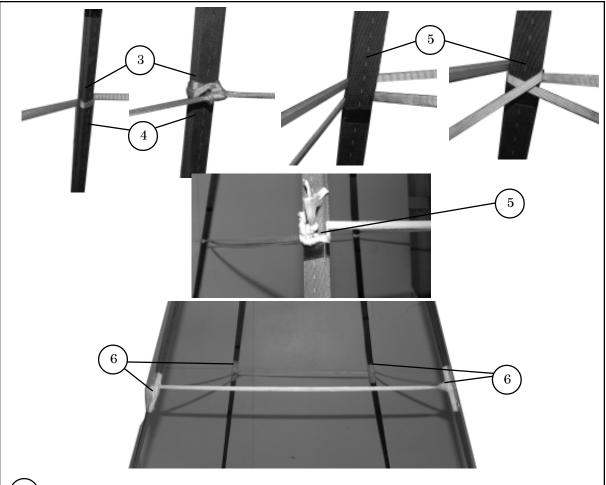


Figure 3-10. Safety Tieing Slings with a Deadman's Tie



- Pass one running end to the left front sling, through the center plies, around the inside of the plies to the outside. Tie it to the inside of the plies with three alternating half hitches and an overhand knot in the running end.
- $\left(egin{array}{c} 4 \end{array}
  ight)$  Repeat step 3 for the right rear sling.
- (5) Run both ends of the webbing through the center plies of the left rear sling and around the inboard side of the sling to the outboard side. Safety tie it with a surgeon's knot, a locking knot, and an overhand knot in the free ends.
- $\left(\begin{array}{c}6\end{array}
  ight)$  Tape the webbing to the slings.
- (7) When using four-loop, type XXVI suspension slings, wrap each four plies with a 10- by 10-inch piece of cotton muslin. Secure each wrap with one single turn of 1/4-inch cotton webbing. (Not shown)

Note: Make sure the safety tie allows the slings to suspend in their natural position.

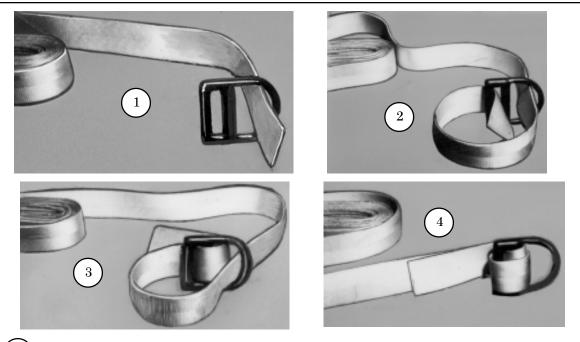
Figure 3-10. Safety Tieing Slings with a Deadman's Tie (Continued)

### FITTING D-RINGS

3-12. Fit a D-ring to the end of each tiedown strap as shown in Figure 3-11.

### LASHING LOAD

3-13. Lash a low-velocity airdrop load to the platform according to the instructions in the specific rigging manual. Install the lashings as shown in Figures 3-12 and 3-13. When a load is rigged for which there is no specific rigging manual, lashings must provide restraint to withstand extraction, recovery, and ground impact forces. Airdrop loads that do not have specific rigging procedures must be restrained to the airdrop platform to the following criteria: 3Gs forward, 2.25 Gs aft, 1.5 Gs lateral, and 2 Gs vertical. The total force that is necessary to restrain a load in a given direction is determined by multiplying the weight of the load times the specific G value for that restraint direction. Lashing effective strength is determined as shown in Table 2-4.



- $\left(\begin{array}{c}1\end{array}
  ight)$  Run the free end of the tiedown strap through the large opening in the D-ring.
- $\left(\begin{array}{c}2\end{array}
  ight)$  Run the strap around and through the small opening in the D-ring.
- 3 Run the strap back through the large opening in the D-ring.
- 4 Pull the strap taut.

Figure 3-11. D-Ring Fitted to Tiedown Strap

# Do not tighten the lashings so tight that they cause the platform to bow especially in the aircraft.

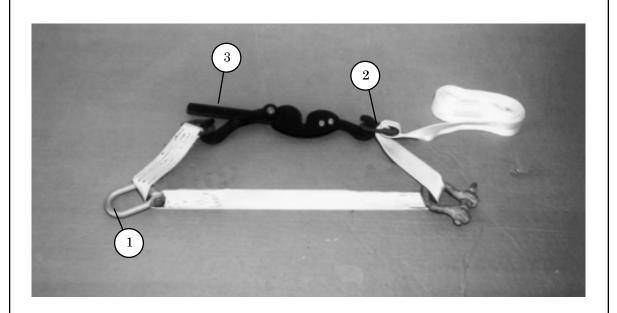
**CAUTION** 

- 1 Pass the free end of one tiedown strap through a clevis on the right rail and through its own D-ring. Pull the strap taut.
- $\left( \begin{array}{c} 2 \end{array} 
  ight)$  Run the free end of the strap up over the load.
- Pass the free end of a second tiedown strap through a clevis on the left rail and through its own D-ring. Pull the strap taut.
- 4 Run the free end of the strap up over the load.
- (5) Fit a D-ring on the free end of each strap as described in Figure 3-11, and place the D-rings on the hooks of a load binder. Safety the binder handle closed as shown in Figure 3-14.

### Notes:

- 1. When the tiedown strap length is not a factor, it is permissible to use a single tiedown strap and D-ring with a load binder attached directly to a side rail clevis or tiedown ring.
- 2. Pad all sharp edges that may touch the strap with cellulose wadding or other suitable material.

Figure 3-12. Single Line Lashing

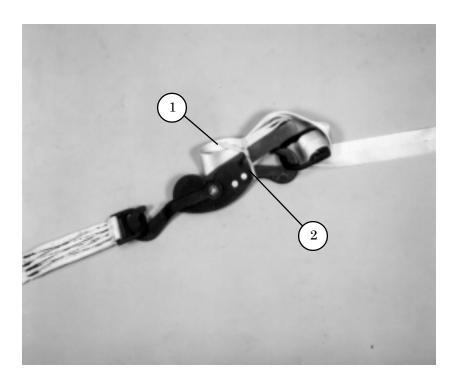


- Pass the free end of a tiedown strap through a clevis on a rail and up and over, around, or through the indicated tiedown provision on the load. The tiedown provision will be listed in the specific rigging manual for a particular load. Run the strap back toward the clevis.
- 2 Fit a D-ring to the free end of the strap (Figure 3-11), and place the D-rings on the hooks of a load binder. Close the handle of the load binder pointing toward the platform.
- 3 Safety the binder handle closed as shown in Figure 3-14.

Figure 3-13. A Looped (Floating Binder) Lashing

### SAFETY TIEING LOAD BINDER HANDLES

3-14. Fold the excess tiedown strap, and place the folds alongside the load binder handle. Safety tie the load binder handle closed as shown in Figure 3-14.



- After the handle of the load binder has been closed, fold or roll any excess tiedown strap and place the folds alongside the load binder handle.
- Tie the folded webbing to the binder and the binder handle closed with a single length of type I, 1/4-inch cotton webbing.

Figure 3-14. Load Binder Handle and Excess Webbing Safety Tied

# FORMING A 30-FOOT, 45-FOOT, OR GREATER LENGTH TIEDOWN STRAP

3-15. When needed, attach 15-foot tiedown straps together to form a 30-foot, 45-foot, or greater length tiedown strap as shown in Figure 3-15.

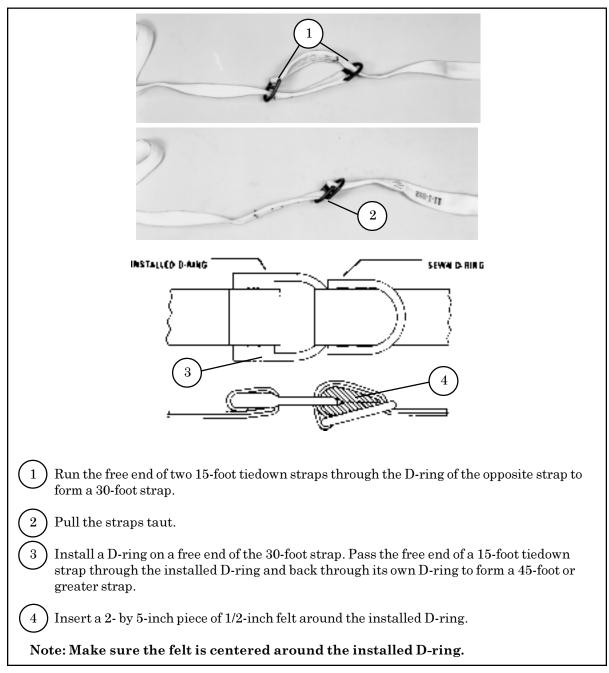


Figure 3-15. A 30-Foot, 45-Foot, or Greater Length Tiedown Strap Formed

### **Section IV**

# **Cargo Parachutes**

### RISER EXTENSIONS

3-16. The risers of a cluster of cargo parachutes used on low-velocity airdrop loads must be extended (lengthened). The length of the extension needed for the cluster is given in Table 2-6.

- a. Forming Extensions. Only continuous riser extensions may be used.
- **b.** Bolting Extensions to Risers. Bolt the riser extension to the risers of a cargo parachute as shown in Figure 3-16.

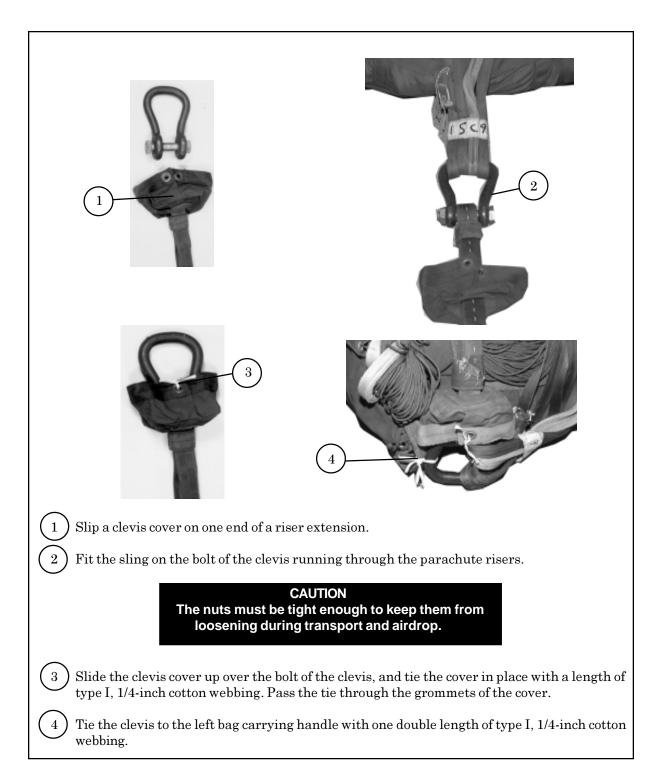


Figure 3-16. Riser Extension Bolted to Risers